

Please type a plus sign (+) inside this box



Approved for use through 10-31-99. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

PTO/SB/08A (10-96)

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>COMPLETE IF KNOWN</b>	
				Application Number	10/072,605
				Filing Date	February 5, 2002
				First Named Inventor	Michael J. Renn
				Group Art Unit	2877
				Examiner Name	UNKNOWN
Sheet	1	of	7	Attorney Docket Number	ODC-2000-1-CIPB

RECEIVED  
 OCT 22 2003  
 TECHNOLOGY CENTER 2800

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document Kind Code <sup>2</sup> Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		3,590,477	G. Cheroft, et al.	07/06/1971	
		3,715,785	A. V. Brown, et al.	02/13/1973	
		3,808,432	A. Ashkin	04/30/1974	
		3,808,550	A. Ashkin	04/30/1974	
		3,846,661	A. V. Brown, et al.	11/05/1974	
		3,901,798	C.M. Peterson	08/26/1975	
		3,959,798	F. Hochberg, et al.	05/25/1976	
		3,974,769	F. Hochberg, et al.	08/17/1976	
		3,982,251	F. Hochberg	09/21/1976	
		4,016,417	R.G. Benton	04/05/1977	
		4,019,188	F. Hochberg, et al.	04/19/1977	
		4,046,073	J. L. Mitchell, et al.	09/06/1977	
		4,046,074	F. Hochberg, et al.	09/06/1977	
		4,112,437	J. M. Mir, et al.	09/05/1978	
		4,280,669	R.J. Schaefer, et al.	04/29/1980	
Examiner Signature				Date Considered	11/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449form-pat.doc DSN 31508-3400

1. Unique citation designation number. 2. See attached Kinds of U.S. Patent Documents. 3. Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). 4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6. Applicant is to place a check mark here if English language Translation is attached.

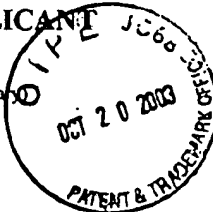
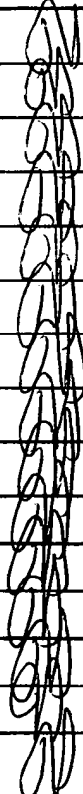
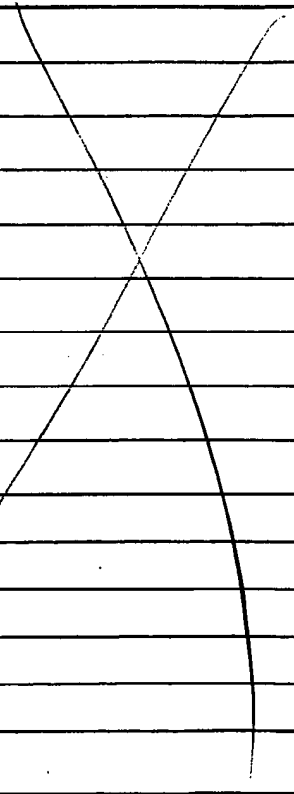
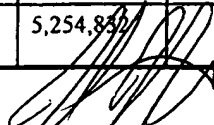
Please type a plus sign (+) inside this box



Approved for use through 10-31-99. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

PTO/SB/08A (10-96)

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>COMPLETE IF KNOWN</b>	
				Application Number	10/072,605
				Filing Date	February 5, 2002
				First Named Inventor	Michael J. Renn
				Group Art Unit	2877
				Examiner Name	UNKNOWN
Sheet	2	of	7	Attorney Docket Number	ODC2000-1-CIPB
<b>U.S. PATENT DOCUMENTS</b>					
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document Kind Code <sup>2</sup> Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		4,228,440	M. Horike, et al.	10/14/1980	
		4,269,868	N.B. Livsey	05/26/1981	
		4,323,756	C.O. Brown, et al.	04/06/1982	
		4,453,803	T. Hidaka, et al.	06/12/1984	
		4,670,135	V.A. Marple, et al.	06/02/1987	
		4,825,299	Y. Okada, et al.	04/25/1989	
		4,947,463	J. Matsuda, et al.	08/07/1990	
		5,032,850	G.B. Andeen, et al.	07/16/1991	
		5,043,548	E.J. Whitney, et al.	08/27/1991	
		5,164,535	J.D. Leasure	11/17/1992	
		5,170,890	S.D. Wilson, et al.	12/15/1992	
		5,182,430	G.L. Lagain	01/26/1993	
	5,194,297	B.W. Scheer, et al.	03/16/1993		
	5,208,431	F. Uchiyama, et al.	05/04/1993		
	5,254,832	G. Gartner, et al.	10/19/1993		
Examiner Signature				Date Considered	1/7/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449a-p2.doc DSN 31 508-3400

1. Unique citation designation number.
2. See attached Kinds of U.S. Patent Documents.
3. Enter office that issued the document, by the two-letter code (WIPO Standard ST.3).
4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.
6. Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box



PTO/SB/08A (10-96)

Approved for use through 10-31-99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>COMPLETE IF KNOWN</b>		
				Application Number	10/072,605	
				Filing Date	February 5, 2002	
				First Named Inventor	Michael J. Renn	
				Group Art Unit	2877	
				Examiner Name	UNKNOWN	
Sheet	3	of	7	Attorney Docket Number		ODC2000-1-CIPB

RECEIVED  
 OCT 22 2003  
 TECHNOLOGY CENTER 2800

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document <sup>2</sup> Kind Code Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		5,335,000		W.R. Stevens	08/02/1994	
		5,366,559		R. Periasamy	11/22/1994	
		5,378,505		T. Kubota, et al.	01/03/1995	
		5,378,508		A.J. Castro, et al.	01/03/1995	
		5,403,617		P.D. Haaland	04/04/1995	
		5,449,536		M.E. Funkhouser, et al.	09/12/1995	
		5,486,676		S. Aleshin	01/23/1996	
		5,495,105		M. Nishimura, et al.	02/27/1996	
		5,607,730		R.J. Ranalli	03/04/1997	
		5,612,099		S.L. Thaler	03/18/1997	
		5,733,609		L. Wang, et al.	03/31/1998	
		5,736,195		P.D. Haaland	04/07/1998	
		5,772,106		S.D. Ayers, et al.	06/30/1998	
		5,854,311		D.S. Richart	12/29/1998	
		5,940,099		H. Karlinski	08/17/1999	
		5,993,549		H. Kindler, et al.	11/30/1999	
Examiner Signature					Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449a-pg3.doc DSN 31508-3400

1. Unique citation designation number.
2. See attached Kinds of U.S. Patent Documents.
3. Enter office that issued the document, by the two-letter code (WIPO Standard ST.3).
4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.
6. Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box



Approved for use through 10-31-99. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

PTO/SB/08A (10-96)

1.  
OCT 22  
TECHNOLOGY CENTER

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>COMPLETE IF KNOWN</b>	
				Application Number	10/072,605
				Filing Date	February 5, 2002
				First Named Inventor	Michael J. Renn
				Group Art Unit	2877
				Examiner Name	UNKNOWN
				Attorney Docket Number	ODC2000-1-CIPB
Sheet	4	of	7		
<b>U.S. PATENT DOCUMENTS</b>					
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document Kind Code <sup>2</sup> Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		6,015,083	D.J. Hayes, et al.	01/18/2000	
		6,110,144	R.T. Choh, et al.	08/29/2000	
		6,116,718	E. Peeters, et al.	09/12/2000	
		6,136,442	K.H. Wong	10/24/2000	
		6,151,435	H.S. Pilloff	11/21/2000	
		6,182,688	C. Fabre	02/06/2001	
		6,251,488	W.D. Miller, et al.	06/26/2001	
		6,258,733	N. Solayappan, et al.	07/10/2001	
		6,265,050	K.H. Wong, et al.	07/24/2001	
		6,290,342	T.A. Vo, et al.	09/18/2001	
		6,291,088	K.H. Wong, et al.	09/18/2001	
		6,293,659	P.D. Floyd, et al.	09/25/2001	
	6,340,216	E. Peeters, et al.	01/22/2002		
	6,406,137	T. Okazaki, et al.	06/18/2002		
Examiner Signature			Date Considered 1/10/04		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449a-p4.doc DSN 31508-3400

1. Unique citation designation number.
2. See attached Kinds of U.S. Patent Documents.
3. Enter office that issued the document, by the two-letter code (WIPO Standard ST.3).
4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.
6. Applicant is to place a check mark here if English language Translation is attached.

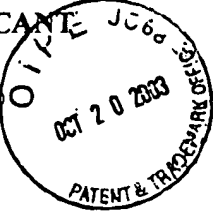
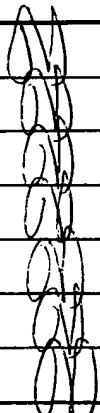
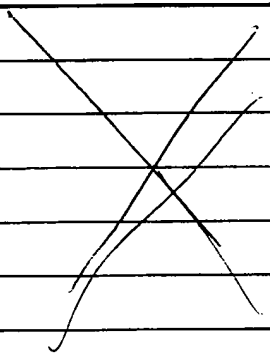

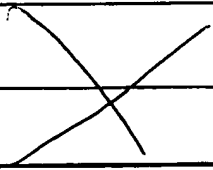
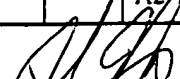
Please type a plus sign (+) inside this box



Approved for use through 10-31-99. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

PTO/SB/08A (10-96)

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary) 				<b>COMPLETE IF KNOWN</b>			
				Application Number	10/072,605		
				Filing Date	February 5, 2002		
				First Named Inventor	Michael J. Renn		
				Group Art Unit	2877		
Examiner Name	UNKNOWN	<b>RECEIVED</b> 2003 2800					
Attorney Docket Number	ODC2000-1-CIPB						
Sheet	5	of	7				
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document Kind Code <sup>2</sup> Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		6,416,156		J. Noolandi, et al.	07/09/2002		
		6,416,157		E. Peeters, et al.	07/09/2002		
		6,416,158		P.D. Floyd, et al.	07/09/2002		
		6,416,159		P.D. Floyd, et al.	07/09/2002		
		6,454,384		E. Peeters, et al.	09/24/2002		
		6,467,862		E. Peeters, et al.	10/22/2002		
		6,481,074		H. Karlinski	11/19/2002		
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T
		EP	0 331 022 A2	Texas Instruments Incorporated	09/06/1989		
		EP	0 444 550 A2	Fried, Krupp Gesellschaft mit Beschränkter Haftung	09/04/1991		
Examiner Signature 				Date Considered 11/2/04			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449a-p5.doc DSN 31508-3400

1. Unique citation designation number. 2. See attached Kinds of U.S. Patent Documents. 3. Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). 4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6. Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box



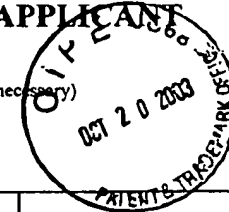
PTO/SB/08B (10-96)

Approved for use through 10-31-99. OMB 0651-003  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>COMPLETE IF KNOWN</b>			
				Application Number		10/072,605	
				Filing Date		February 5, 2002	
				First Named Inventor		Michael J. Renn	
				Group Art Unit		2877	
				Examiner Name		UNKNOWN	
Sheet	6	of	7	Attorney Docket Number		ODC2000-1-CIPb	

RECEIVED  
 OCT 22 2003  
 TECHNOLOGY CENTER 2800



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
AS		ASHKIN, A., "Acceleration and Trapping of Particles by Radiation Pressure", <i>Physical Review Letters</i> , January 26, 1970, pp. 156-159, Vol. 24, No. 4, The American Physical Society	
AS		ASHKIN, A., et al., "Optical trapping and manipulation of single cells using infrared laser beams", <i>Nature</i> , 24/31 December, 1987, pp. 769-771, Vol. 330, London, Great Britain	
LE		LEWANDOWSKI, H.J., et al., "Laser Guiding of Microscopic Particles in Hollow Optical Fibers", <i>Announcer</i> 27, Summer Meeting - Invited and Contributed Abstracts, July 1997, pg. 89	
MA		MARPLE, V.A., et al., "Inertial, Gravitational, Centrifugal, and Thermal Collection Techniques", <i>Aerosol Measurement: Principles, Techniques and Applications</i> , 2001, pp. 229-260, Wiley-Interscience, New York, N.Y.	
OD		ODDE, D.J., et al., "Laser-Based Guidance of Cells Through Hollow Optical Fibers", <i>The American Society for Cell Biology Thirty-Seventh Annual Meeting</i> , 12/17/1997	
OD		ODDE, D.J., et al., "Laser-guided direct writing for applications in biotechnology", <i>Trends in Biotechnology</i> , October, 1999, pp. 385-389, Vol. 17, Elsevier Trend Journals, Cambridge, U.K.	
RE		RENN, M.J., et al., "Evanescent-wave guiding of atoms in hollow optical fibers", <i>Physical Review A</i> , February, 1996, pp. R648-R651, Vol. 53, No. 2, The American Physical Society	
RE		RENN, M.J., et al., "Laser-Guided Atoms in Hollow-Core Optical Fibers", <i>Physical Review Letters</i> , October 30, 1995, pp. 3253-3256, Vol. 75, No. 18, The American Physical Society	
RE		RENN, M.J., et al., "Laser Guidance and Trapping of Mesoscale Particles in Hollow-Core Optical Fibers", <i>Physical Review Letters</i> , February 15, 1999, pp. 1574-1577, Vol. 82, No. 7, The American Physical Society	
Examiner Signature	Date 1/9/04		Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449form-2-pat.doc DSN 31508-3400

<sup>1</sup> Unique citation designation number. 2. Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box

+

PTO/SB/08B (10-96)

Approved for use through 10-31-99. OMB 0651-003

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>COMPLETE IF KNOWN</b>	
			Application Number	10/072,605
			Filing Date	February 5, 2002
			First Named Inventor	Michael J. Renn
			Group Art Unit	2877
			Examiner Name	UNKNOWN
Sheet 7 of	Attorney Docket Number		ODC2000-1-CIPB	

RECEIVED  
 OCT 22 2003  
 TECHNOLOGY CENTER 2800

OCT 20 2003  
 PATENT & TRADEMARK OFFICE

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		RENN, M.J., et al., "Optical-dipole-force fiber guiding and heating of atoms", <i>Physical Review A</i> , May, 1997, pp. 3684-3696, Vol. 55, No. 5, The American Physical Society	
		RENN, M.J., et al., "Particle manipulation and surface patterning by laser guidance", <i>Journal of Vacuum Science &amp; Technology B</i> , Nov/Dec 1998, pp. 3859-3863, Vol. 16, No. 6, American Vacuum Society	
		RENN, M.J., et al., "Particle Manipulation and Surface Patterning by Laser Guidance", submitted to EIPBN '98, Session AM4	
		TSI Incorporated, "How A Virtual Impactor Works", www.tsi.com	
		Vanheusden, K., et al., "Direct Printing of Interconnect Materials for Organic Electronics", <i>IMAPS ATW, Printing an Intelligent Future</i> , March 8-10, 2002, pp. 1-5, Lake Tahoe	

Examiner Signature		Date Considered	1/7/04
--------------------	--	-----------------	--------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

G:\Diane\Optomec\605-1449b-p1.doc DSN 31508-3400

<sup>1</sup> Unique citation designation number. 2. Applicant is to place a check mark here if English language Translation is attached.